

A Revolution in Bridge Construction

The Accelerated Bridge Program (ABP) was implemented in 2012 to improve the condition of Vermont's bridges while reducing project costs through expedited project development, delivery and construction. This program uses accelerated bridge construction (ABC) and short-term road closures to rehabilitate or replace deteriorated bridges and culverts across Vermont in weeks as compared to entire construction seasons with conventional construction. (Check out how ABC works here.)

During Tropical Storm Irene accelerated construction was used out of necessity, but from that experience VTrans learned a lot about innovative techniques that help us minimize project impacts and build faster without compromising quality.

VTrans' ABP has become a recognized national leader. The ABP is dedicated to expediting project completion with a strong emphasis on customer service. Overall, VTrans has dramatically reduced the number of structurally deficient bridges from 16% to 7% since 2009.

The program continues to develop and implement strategies to:

- Seek and gain public support,
- Standardize design and plan preparation,
- Vet alternative contracting methods; and
- Incorporate technologies to shorten project delivery, reduce environmental impacts, and impacts on the traveling public.

During the 2014 construction season, accelerated bridge construction and prefabricated bridge components were used to replace five bridges in the same region in record time (some even over long weekends!) in East Middlebury, Rochester and Warren.

All five bridge projects required significant coordination of the bridge closure periods and alternating detour routes. For example, when VT 125 was closed, traffic was detoured onto VT 73. To ensure the traveling public was well informed, various public outreach strategies were utilized including project factsheets, pre-closure public information meetings, and a dedicated website and weekly email updates for real time information. A public survey following construction indicated that that 83 percent of the 41 respondents were very satisfied with

accelerated bridge construction and 74 percent were very satisfied with the information they received about the projects during construction.

A construction method known as a <u>lateral slide</u> will be used to replace Bridges 43 Northbound and Southbound located on I-91 in the town of Hartford over US Route 5 during the summer of 2015. The two new bridge structures will be constructed adjacent to the existing structures and slid into place over two weekends, one for each bridge. This innovative construction method significantly reduces onsite construction time and associated traffic impacts as well as making the work zone safer for the public and construction workers alike. Construction will begin March 1, 2015 with the lateral slides planned for two consecutive weeks in the month of August 2015.

To date, 22 bridges and culverts have been replaced across the state through the ABP including 11 bridges damaged by Tropical Storm Irene. There are another 6 projects planned for the 2015 construction season. ABC is changing the way we do business in Vermont by reducing road closures, improving motorist and worker safety, and decreasing overall project costs and impacts.